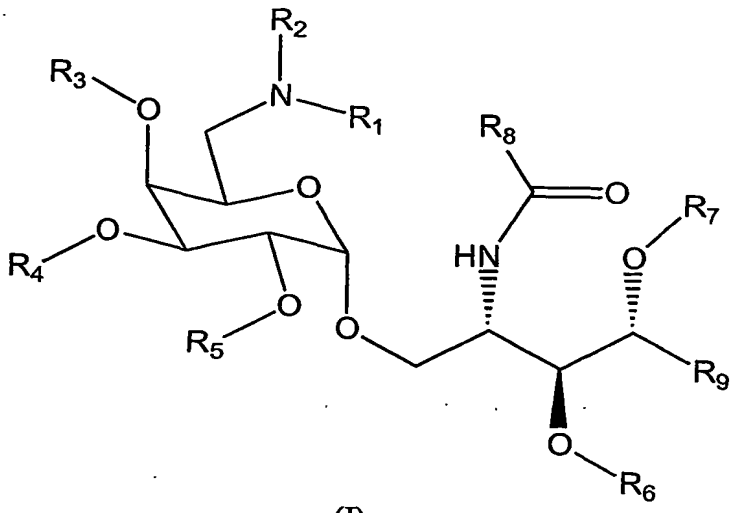
WHAT IS CLAIMED IS:

1. A compound of Formula (I):



(I)

wherein,

R_1 is:

(i) hydrogen; or

(ii) $-SO_2R_{10}$,

wherein R_{10} is:

halo; hydroxy; OR_{11}; OR_{12}; amino; NHR_{11}; $N(R_{11})_2$; NHR_{12}; $N(R_{12})_2$; aralkylamino; or

C_1-C_{12} alkyl optionally substituted with halo, hydroxy, oxo, nitro, OR_{11}, OR_{12}, acyloxy, amino, NHR_{11}, $N(R_{11})_2$, NHR_{12}, $N(R_{12})_2$, aralkylamino, mercapto, thioalkoxy, $S(O)R_{11}$, $S(O)R_{12}$, SO_2R_{11}, SO_2R_{12}, $NHSO_2R_{11}$, $NHSO_2R_{12}$, sulfate, phosphate, cyano, carboxyl, $C(O)R_{11}$, $C(O)R_{12}$, $C(O)OR_{11}$, $C(O)NH_2$, $C(O)NHR_{11}$, $C(O)N(R_{11})_2$, C_3-C_{10} cycloalkyl containing 0-3 R_{13}, C_3-C_{10} heterocyclyl containing 0-3 R_{13}, C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_5-C_{10} cycloalkenyl, C_5-C_{10} heterocycloalkenyl, C_6-C_{20} aryl containing 0-3 R_{14}, or heteroaryl containing 0-3 R_{14}; or

C_3-C_{10} cycloalkyl, C_3-C_{10} heterocyclyl, C_5-C_{10} cycloalkenyl, or C_5-C_{10} heterocycloalkenyl optionally substituted with one or more halo, hydroxy, oxo, OR_{11}, OR_{12}, acyloxy, nitro, amino, NHR_{11}, $N(R_{11})_2$, NHR_{12}, $N(R_{12})_2$, aralkylamino, mercapto, thioalkoxy, $S(O)R_{11}$, $S(O)R_{12}$, SO_2R_{11}, SO_2R_{12}, $NHSO_2R_{11}$, $NHSO_2R_{12}$, sulfate, phosphate, cyano, carboxyl, $C(O)R_{11}$, $C(O)R_{12}$, $C(O)OR_{11}$, $C(O)NH_2$, $C(O)NHR_{11}$, $C(O)N(R_{11})_2$, alkyl, haloalkyl, C_3-C_{10} cycloalkyl containing 0-3 R_{13}, C_3-C_{10} heterocyclyl containing 0-3 R_{13}, C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_5-C_{10} cycloalkenyl, C_5-C_{10} heterocycloalkenyl, C_6-C_{20} aryl heteroaryl containing 0-3 R_{14}, or C_6-C_{20} heteroaryl containing 0-3 R_{14}; or

C_2-C_6 alkenyl, C_2-C_6 alkynyl, aryl, or heteroaryl optionally substituted with one or more halo, hydroxy, OR_{11}, OR_{12}, acyloxy, nitro, amino, NHR_{11}, $N(R_{11})_2$, NHR_{12}, $N(R_{12})_2$, aralkylamino, mercapto, thioalkoxy, $S(O)R_{11}$, $S(O)R_{12}$, SO_2R_{11}, SO_2R_{12}, $NHSO_2R_{11}$, $NHSO_2R_{12}$, sulfate, phosphate, cyano, carboxyl, $C(O)R_{11}$, $C(O)R_{12}$, $C(O)OR_{11}$, $C(O)NH_2$, $C(O)NHR_{11}$, $C(O)N(R_{11})_2$, alkyl, haloalkyl, C_3-C_{10} cycloalkyl containing 0-3 R_{13}, C_3-C_{10} heterocyclyl containing 0-3 R_{13}, C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_5-C_{10} cycloalkenyl, C_5-C_{10} heterocycloalkenyl, C_6-C_{20} aryl containing 0-3 R_{14}, or C_6-C_{20} heteroaryl containing 0-3 R_{14}; or

(iii) $-C(O)R_{10}$, wherein R_{10} is defined as above; or

(iv) $-C(R_{10})_2(R_{15})$, wherein R_{10} is defined as above; R_{15} is hydrogen, R_{10}, or R_{15} and R_2 taken together forms a double bond between the carbon and nitrogen atoms to which they are attached; or

(v) R_1 and R_2 taken together forms a heterocyclyl of 3-10 ring atoms optionally substituted with R_{10};

R_2 is hydrogen, or R_2 and R_{15} taken together forms a double bond between the carbon and nitrogen atoms to which they are attached, or R_2 and R_1 taken together forms a heterocyclyl of 3-10 ring atoms optionally substituted with R_{10};

R_3, R_4, R_5, R_6, and R_7 are each independently hydrogen, C_1-C_6 alkyl, C_6-C_{12} aralkyl, or C_1-C_6 acyl;

R_8 is $-(CH_2)_xCH_3$;

R_9 is a linear or branched C_3-C_{100} alkyl;

R_{11} is C_1-C_{20} alkyl optionally substituted with halo, hydroxy, alkoxy, amino, alkylamino, dialkylamino, sulfate, or phosphate;

R_{12} is aryl optionally substituted with halo, haloalkyl, hydroxy, alkoxy, nitro, amino, alkylamino, dialkylamino, sulfate, or phosphate;

Each R_{13} is independently halo, haloalkyl, hydroxy, alkoxy, oxo, amino, alkylamino, dialkylamino, sulfate, or phosphate;

Each R_{14} is independently halo, haloalkyl, hydroxy, alkoxy, nitro, amino, alkylamino, dialkylamino, sulfate, or phosphate; and

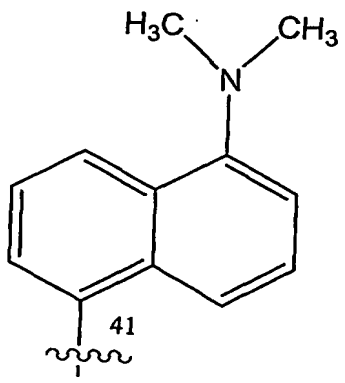
x is 1-100.

2. The compound of claim 1 wherein x is 24 and R_9 is *n*-tetradecyl.

3. The compound of claim 2 wherein R_1 is SO_2R_{10}.

4. The compound of claim 3 wherein R_{10} is aryl substituted with $N(R_{11})_2$;

5. The compound of claim 4 wherein R_{10} is:

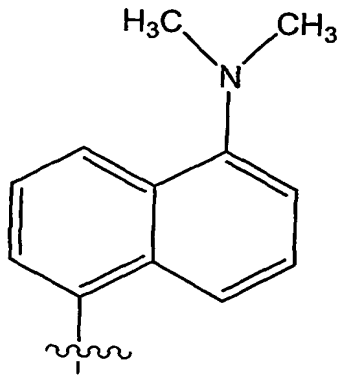


6. The compound of claim 2 wherein R_1 is $C(O)R_{10}$.

7. The compound of claim 6 wherein R_{10} is C_1-C_6 alkyl substituted with halo, hydroxy, oxo, nitro, OR_{11}, OR_{12}, acyloxy, amino, NHR_{11}, $N(R_{11})_2$, NHR_{12}, $N(R_{12})_2$, aralkylamino, mercapto, thioalkoxy, $S(O)R_{11}$, $S(O)R_{12}$, SO_2R_{11}, SO_2R_{12}, $NHSO_2R_{11}$, $NHSO_2R_{12}$, sulfate, phosphate, cyano, carboxyl, $C(O)R_{11}$, $C(O)R_{12}$, $C(O)OR_{11}$, $C(O)NH_2$, $C(O)NHR_{11}$, $C(O)N(R_{11})_2$, C_3-C_{10} cycloalkyl containing 0-3 R_{13}, C_3-C_{10} heterocyclyl containing 0-3 R_{13}, C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_5-C_{10} cycloalkenyl, C_5-C_{10} heterocycloalkenyl, C_6-C_{20} aryl containing 0-3 R_{14}, or C_6-C_{20} heteroaryl containing 0-3 R_{14};

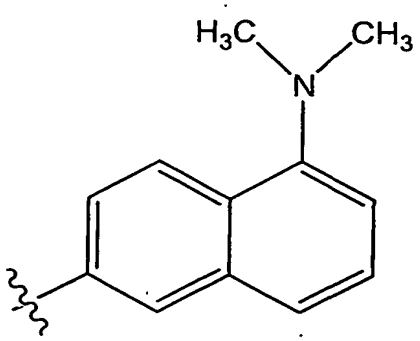
8. The compound of claim 7 wherein R_{10} is C_1-C_6 alkyl substituted with $NHSO_2R_{12}$.

9. The compound of claim 8 wherein R_{12} is:



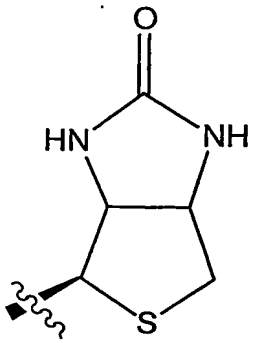
10. The compound of claim 7, wherein R_{10} is alkyl substituted with $C(O)R_{12}$.

11. The compound of claim 10 wherein R_{12} is:

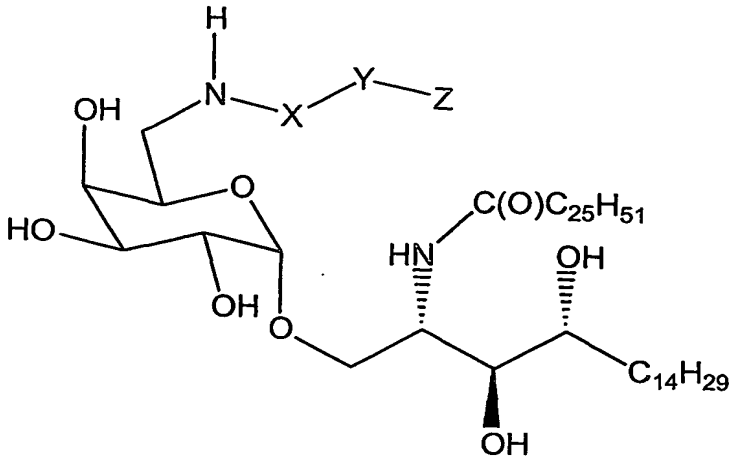


12. The compound of claim 7 wherein R_{10} is alkyl is substituted with C_5-C_{10} heterocyclyl containing 0-3 R_{13}.

13. The compound of claim 12 wherein the heterocyclyl is:



14. A probe for observing glycolipid association with CD1d and NKT cell receptors during NKT cell stimulation comprising a compound of Formula (II):



wherein:

X is $-SO_2-$,–C(O)-, or absent;

Y is a linker group; and

Z is a reporter group.

15. A method of quantifying glycolipid association with CD1d and NKT cell receptors during NKT cell stimulation comprising: (i) contacting a compound of Formula (II) with a CD1d protein; (ii) allowing the compound to associate with the CD1d protein; (iii) measuring fluorescence emitted by the compound during steps (i) and (ii) to provide one or more pre-NKT cell contact fluorescence measurements; (iv) contacting the compound and CD1d protein with an NKT cell line; (v) measuring fluorescence emitted by the compound during step (iv) to provide one or more NKT cell contact fluorescence measurements.

16. The method of claim 15 wherein step (v) is repeated over time.

17. The method of claim 15 further comprising the step of comparing the fluorescence measurements in steps (iii) and (v).

18. A method of stimulating NKT cells comprising contacting an NKT cell with a compound of Formula (I) and a CD1 protein.

19. The method of claim 18 wherein the protein is CD1d.

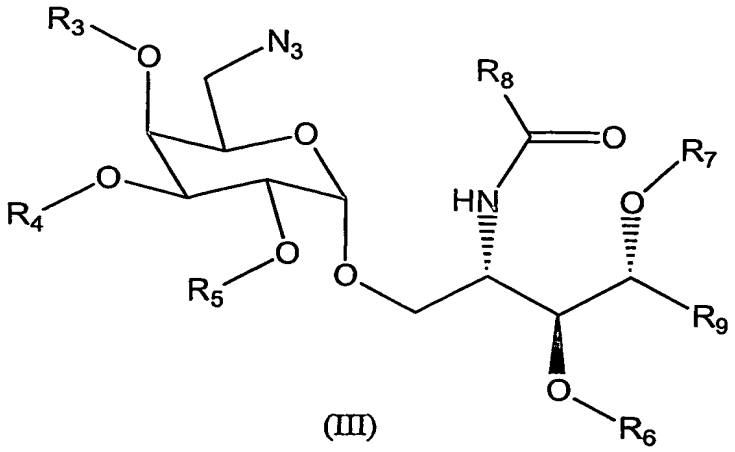
20. A method of stimulating the immune system of a subject in need of such stimulation, the method comprising administering a compound of Formula (I) to the subject.

21. A method of treating an autoimmune disease in a subject in need of such treatment, the method comprising administering an effective amount of a compound of Formula (I).

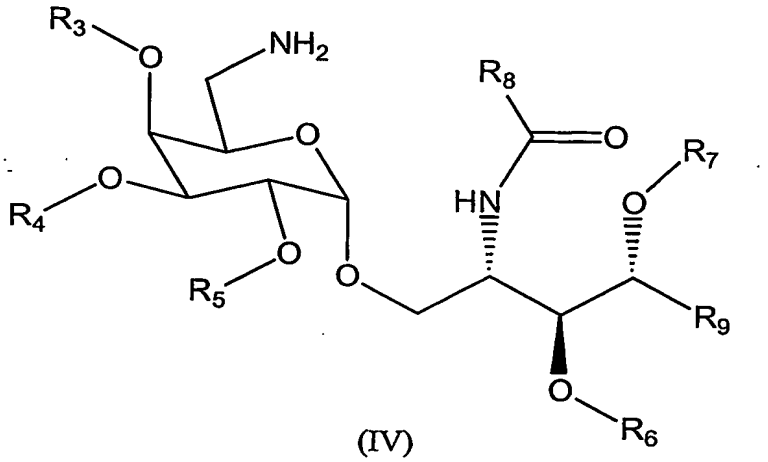
22. The method of claim 20 or 21 wherein the subject is a mammal.

23. The method of claim 22 wherein the subject is a human.

24. A method of making a compound of Formula (I) comprising: (i) converting a compound of Formula (III) to a compound of Formula (IV):



(III)



(IV)

and (ii) contacting a compound of Formula (IV) with R_1-LG to afford a compound of Formula (I), wherein:

R_1 is:

(i) $-SO_2R_{10}$,

wherein R_{10} is:

halo; hydroxy; OR_{11}; OR_{12}; amino; NHR_{11}; $N(R_{11})_2$; NHR_{12}; $N(R_{12})_2$; aralkylamino; or

C_1-C_{12} alkyl optionally substituted with halo, hydroxy, oxo, nitro, OR_{11}, OR_{12}, acyloxy, amino, NHR_{11}, $N(R_{11})_2$, NHR_{12}, $N(R_{12})_2$, aralkylamino, mercapto, thioalkoxy, $S(O)R_{11}$, $S(O)R_{12}$, SO_2R_{11}, SO_2R_{12}, $NHSO_2R_{11}$, $NHSO_2R_{12}$, sulfate, phosphate, cyano, carboxyl, $C(O)R_{11}$, $C(O)R_{12}$, $C(O)OR_{11}$, $C(O)NH_2$, $C(O)NHR_{11}$, $C(O)N(R_{11})_2$, C_3-C_{10} cycloalkyl containing 0-3 R_{13}, C_3-C_{10} heterocyclyl containing 0-3 R_{13}, C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_5-C_{10} cycloalkenyl, C_5-C_{10} heterocycloalkenyl, C_6-C_{20} aryl containing 0-3 R_{14}, or C_6-C_{20} heteroaryl containing 0-3 R_{14}; or

C_3-C_{10} cycloalkyl, C_3-C_{10} heterocyclyl, C_5-C_{10} cycloalkenyl, or C_5-C_{10} heterocycloalkenyl optionally substituted with one or more halo, hydroxy, oxo, OR_{11}, OR_{12}, acyloxy, nitro, amino, NHR_{11}, $N(R_{11})_2$, NHR_{12}, $N(R_{12})_2$, aralkylamino, mercapto, thioalkoxy, $S(O)R_{11}$, $S(O)R_{12}$, SO_2R_{11}, SO_2R_{12}, $NHSO_2R_{11}$, $NHSO_2R_{12}$, sulfate, phosphate, cyano, carboxyl, $C(O)R_{11}$, $C(O)R_{12}$, $C(O)OR_{11}$, $C(O)NH_2$, $C(O)NHR_{11}$, $C(O)N(R_{11})_2$, alkyl, haloalkyl, C_3-C_{10} cycloalkyl containing 0-3 R_{13}, C_3-C_{10} heterocyclyl containing 0-3 R_{13}, C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_5-C_{10} cycloalkenyl, C_5-C_{10} heterocycloalkenyl, C_6-C_{20} aryl containing 0-3 R_{14}, or C_6-C_{20} heteroaryl containing 0-3 R_{14}; or

C_2-C_6 alkenyl, C_2-C_6 alkynyl, aryl, or heteroaryl optionally substituted with one or more halo, hydroxy, OR_{11}, OR_{12}, acyloxy, nitro, amino, NHR_{11}, $N(R_{11})_2$, NHR_{12}, $N(R_{12})_2$, aralkylamino, mercapto, thioalkoxy, $S(O)R_{11}$, $S(O)R_{12}$, SO_2R_{11}, SO_2R_{12}, $NHSO_2R_{11}$, $NHSO_2R_{12}$, sulfate, phosphate, cyano, carboxyl, $C(O)R_{11}$, $C(O)R_{12}$, $C(O)OR_{11}$, $C(O)NH_2$, $C(O)NHR_{11}$, $C(O)N(R_{11})_2$, alkyl, haloalkyl, C_3-C_{10} cycloalkyl containing 0-3 R_{13}, C_3-C_{10} heterocyclyl containing 0-3 R_{13}, C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_5-C_{10} cycloalkenyl, C_5-C_{10} heterocycloalkenyl, C_6-C_{20} aryl containing 0-3 R_{14}, or C_6-C_{20} heteroaryl containing 0-3 R_{14}; or

(ii) $-C(O)R_{10}$, wherein R_{10} is defined as above; or

(iii) $-C(R_{10})_2(R_{15})$, wherein R_{10} is defined as above; R_{15} is hydrogen, R_{10}, or R_{15} and R_2 taken together forms a double bond between the carbon and nitrogen atoms to which they are attached; or

R_3, R_4, R_5, R_6, and R_7 are each independently hydrogen, C_1-C_6 alkyl, C_6-C_{12} aralkyl, or C_1-C_6 acyl;

R_8 is $-(CH_2)_xCH_3$;

R_9 is a linear or branched C_3-C_{100} alkyl;

R_{11} is C_1-C_{20} alkyl optionally substituted with halo, hydroxy, alkoxy, amino, alkylamino, dialkylamino, sulfate, or phosphate;

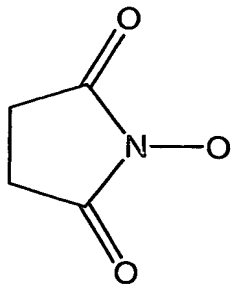
R_{12} is aryl optionally substituted with halo, haloalkyl, hydroxy, alkoxy, nitro, amino, alkylamino, dialkylamino, sulfate, or phosphate;

Each R_{13} is independently halo, haloalkyl, hydroxy, alkoxy, oxo, amino, alkylamino, dialkylamino, sulfate, or phosphate;

Each R_{14} is independently halo, haloalkyl, hydroxy, alkoxy, nitro, amino, alkylamino, dialkylamino, sulfate, or phosphate;

x is 1-100;

LG is halo, $-OSO_2R_{16}$, $B(OH)_2$, or



; and

R_{16} is alkyl, haloalkyl or aryl optionally substituted with alkyl, halo or nitro.

25. A pharmaceutical composititon comprising a compound of Formula (I) and a pharmaceutically acceptable carrier.